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## A STUDY IN THE LOGIC OF THE EARLY GREEK PHILOSOPHY.

### BEING, NOT-BEING, AND BECOMING.

TO understand the early Greek philosophy one needs among some other things candidly to recognise and appreciate the following fact. Those early philosophers from Thales down even to Anaxagoras and the Atomists were almost, if not quite, in complete subjection to the physical or cosmological point of view. The reasons for this subjection, naïve thinkers that they were, are not far to seek and can hardly need attention in this place, but the consequences of it are important. Thus, the human mind being always conservative changes its point of view only under extreme necessity, often preferring even absurdity to surrender, and this conservatism is certainly bound to be stronger among early naïve thinkers than among the mature and more sophisticated. The ancient Greeks, then, of the days before Socrates were for several centuries under the spell of the physical standpoint, and their imagination, made subtle and ingenious by the persisting conservatism and by the necessities that the very progress of thought imposed upon it, led them into strange unearthly places, where even paradoxes, seen and unseen, lost their wonted terrors. And of course in our own times, in these times of natural science, which has shown a disposition at any cost to hold to the physical and mechanical point of view, sympathy with them is easy.<sup>1</sup> By our modern science the paradoxical has been confronted with an amazing bravado, when

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<sup>1</sup> I do not forget that the position taken by science to-day is usually taken consciously, being for the most part a matter of method.

not with a most complacent unconsciousness, and for that matter all human thinking, modern or ancient, has shown itself similarly bold or blind. Human thinking, necessarily one-sided because necessarily subject to some particular point of view, in its search for objective truth must sooner or later, consciously or unconsciously, run into the contradictory or paradoxical, which is both-sided or impartial, and the paradox, so developed, is only the labor that precedes the birth, albeit the slow, almost reluctant birth of a new point of view.

So, to return to the early Greeks and among them particularly to the Eleatics and Herakleitos, the concepts of Being, not-Being, and Becoming are natural results of thought seeking an objective truth, a truth that knows no limitation of view, under the spell of the physical or cosmological standpoint, and they are all heavy with paradox, hidden when not exposed. Thus the Ionic philosopher, Thales, had tried to satisfy the demand of thought for unity with a single physical element, water, and his immediate followers, after vacillating somewhat among the elements generally, were brought to the idea of the Boundless—*τό ἀπειρον*—a great all-inclusive element that could stand for all only by being none. This notion of the Boundless, however, of one thing that was no single thing, a startling paradox when really faced, was in truth teeming with many possibilities, some of which the Milesians themselves partially thought out,<sup>1</sup> but by Xenophanes, father of the Eleatic philos-

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<sup>1</sup> The negative, for example, in the idea of the one thing as no single thing is significant beyond its mere effect upon the conception of a constituent unity. Indeed, it really makes the unity more than constituent, turning it from a static to a dynamic conception, from a passive to an intrinsically active principle; for the one thing that is no single thing must be a potential thing; that is, potentially it must be everything. And Anaximander felt this and added in consequence to his doctrine of the Boundless the doctrine of a process, the constant separation of individuals out of the primal unity. So did the potential ever become actual. The resulting individuals, however,—and this also for Anaximander—were necessarily opposites in every case, they were actively opposed to each other, since only by such opposition, by such counter-compensation, could either the primal unity or its negative be properly conserved. And the *active* opposition mingled with the process of separation a compensating process of unification or adaptation. "And into that from which things take their rise they pass away once more, as is ordained, for they make reparation and satisfaction to one another for their injustice, as he

ophy, it was regarded as purely, unmixedly physical, and, in consequence, was by him developed only on the side of its sheer—static?—reality and unity. Only Being is, he proclaimed, and Being is homogeneously and indivisibly one. On good evidence Burnet has identified this Being with the plenum, that is, the one immobile all-filling thing.<sup>1</sup> Not directly, however, on anything that any of the Eleatics openly said about Being are we here to fix our chief attention, but on the apparently unconscious or only half-conscious paradoxes to which their philosophy was finally reduced. Thus their One was also many; their plenum, vacuum; their Being, not-Being; and their Infinite, finite. Into such darkness did their persistent physical and cosmological point of view bring them.

Their One was really many for no less a reason than that they opposed the Many to it. Extreme opposition is even worse than politics for making strange bed-fellows, since it ends by making the principals themselves lie down together. The One that remained after complete abstraction of the Many could not but be wholly formal or empty; and so, although perhaps still extensively one, it was intensively many. A moral character that owes its unity or integrity to separation from the temptations of the world is virtually, or intensively, a dissipated character, as the outcome shows, when contact with the world comes, and what is true of unity in morals is equally true of unity in a doctrine of substance. Moreover, not only was the Eleatic One virtually—or potentially?—many, but also the converse was true. A manifold that owed its plurality to the abstraction of unity could be a sphere of only the most indifferent differences, that is to say, of differences wholly passive with reference to each other, so that the Many, albeit extensively plural, was intensively one. So, then, the two concepts

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[Anaximander] says in these somewhat poetical terms." The negative unity, then, its potential or dynamic character, its conservation or preservation only through expression in opposed individuals and its process of unification, were concepts that were logically inseparable; and although these suggestions of Anaximander seem to have been made only for a time to be neglected, the very logic that induced them was bound soon to assert itself, as it did in the subsequent philosophy of Herakleitos, whose concept of Becoming is to receive attention in the present paper.

<sup>1</sup> See *Early Greek Philosophy*, p. 189.

of the Eleatics, the One and the Many, directly opposed as they were, were nevertheless mutually inclusive.

But, secondly, the plenum was vacuum. Thus we may rightly think of it as the greatest among all things, the all-filling thing ; but this is only one view of it. Another view, having equal warrant, is made necessary by the very plenitude. It was also the all-containing thing and so was immaterial relatively to the many material things in it. The greatest thing, necessarily including all other things, however plenal within itself, could not but be empty in respect to their fulness. Simply it could not meet the demand of the physical view that it be at once one different thing among other different things and the unity of them all, that it be the greatest thing and at the same time include all other things, without harboring this contradiction.

And, thirdly, Being was itself not-Being ; or, conversely, not-Being was also Being. Of course, these ideas were interdependent or significant only relatively to each other, and such dependence would make complete confusion and paradox, but the meaning here is something more. Logically, as the Eleatic philosophers themselves came to realise, the concept of not-Being was necessary to that of Being ; the Eleatics even used the argument to absurdity, showing the impossibility of not-Being, and this necessity or the importance of such an argument could only give a hint, however imperfectly or distantly understood, of quite another sort of reality than that of physical substance. Physically the world of not-Being, that is, the world of change and multiplicity, was shown to be unreal, to be illusory, to be real only ideally, but as always with ideas of unreality or philosophies of illusion, the standing notion of reality itself, of Being and unity, was put in jeopardy. To have found illusion was to feel, if not clearly to see, the need of viewing reality from another standpoint, from a standpoint not physical or at least more than merely physical. Or again, the physically unreal could not be ideally or logically real without at once upsetting the stability of the physically real.<sup>1</sup> In short, then, by its own

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<sup>1</sup> Or, as another way of putting the same truth, without at once making necessary a new idea of the physical itself.

opposite Being was either robbed of reality or given the sort of reality, namely, that of mind or spirit, that logical necessity or the ideal reality<sup>1</sup> of the physically illusory would suggest. And this only adds to the meaning of what was found above, namely, to put it paradoxically, the physically vacuous character of the all-filling but also all-containing thing or the intensive plurality of an empty, formal One, for a vacuum, like mind, is immaterial, and an intensive plurality is possible only to the unity of mind, which transcends the limitations of extensive quantity.

So, fourthly, the Infinite of the Eleatics was finite; the Finite, infinite. Before considering this, however, we need now to formulate and emphasise a principle that has been well exemplified in the foregoing. Opposites, such as the One and the Many, Being and not-Being, Plenum and Vacuum, in the first place reproduce each one within itself the very opposition that separates them and in the second place give, each to the other, another meaning. In a word, each is always self-opposed and double.<sup>2</sup> Thus above in every case we not only found each opposite in the other but also were brought to recognise, or at least to a point where we might have recognised, that each had two meanings, one open and the other hidden. We might have seen, if we did not see, two kinds of unity and plurality, two of plenitude and vacuity, and two of reality and unreality. And, to return to the Eleatics' fourth paradox, the antithesis of the Infinite and the Finite has the same fate. Each of the two is in itself the other, and each gets from the opposition a second meaning. Moreover, even the Eleatics, or at least some of them, seem to have realised this; else there was no rhyme or reason in their assertion that the One or Being was "neither finite nor infinite," being both. Some, I know, insist that the evidence of such an assertion is very meagre or even wholly wanting, but it nevertheless remains that as a school the Eleatics were in disagreement on the point in question, some flatly denying the infinity and others the finiteness of Being, and their disagreement

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<sup>1</sup> I. e., reality in experience.

<sup>2</sup> This principle I have made use of already in another article. See "Physical Psychology," *Psychological Review*, March, 1900.

may fairly be taken as equivalent to the statement that Being was "neither finite nor infinite." And, logically, which is to say consistently with the real trend and import of Eleaticism, any Eleatic might have made the assertion, whatever may or may not have happened to be said or reported as said. Indeed, history can ill afford to depend wholly on visible evidence, which is at best only "circumstantial." But, leaving the genuineness of the saying to the antiquary, we have only to ask what precisely is meant by being "neither finite nor infinite," and particularly what is the second meaning that this paradox must convey. Merely to appeal to the general principle of self-opposition and duplicity can hardly be expected to make all things clear.

As suggested already, what is neither finite nor infinite must somehow be both; yet how both? That the infinite as not the finite, as outside of the finite, is itself only another finite is obvious and commonplace. The finite, also, relatively to its finite opposite is itself infinite. And the two are thus necessarily mutually inclusive or identical; a curious result, truly, but not to be gainsaid. "Yes," says some one, "but only by dint of a philosopher's ingenuity, of his skill in mere logical gymnastics. To common sense the infinite never can be and never shall be said to be finite, as if forsooth, since by the same token it would really come to this, any smallest part of anything should contain the whole." But we reply that even any smallest part does contain the whole; for is not any part always something more or other than a merely quantitative part? Philosophy appears "ingenious"—certainly a strange mark of shame, it appears skilful in the antics of logic, whenever its thought has outgrown the prevalent traditional form for the expression of thought. Thus, for the case in hand, the whole-containing part or the finite infinite or the infinite finite, however absurd quantitatively, is nevertheless burdened with a real meaning, the very absurdity being due only to the broadening and deepening of the idea of quantity that the concept of infinity effects. What idea is not destined to be broadened and deepened into something more than itself? What idea must not sooner or later end in apparent absurdity? Quantitatively, part and whole may not be coextensive,

but they certainly are so qualitatively; else there were no significance in their being part and whole. Broadening and deepening the idea of quantity, then, by that of infinite quantity, only disclose the fact of quality in the world of quantity, or as equivalent to the same thing, materially change the idea of quantity itself. In short, the opposites, the finite and the infinite, are not only each one self-opposed, but also double. They are double with two forms or "categories" of thought, or with two notions of quantity.

The two "categories" are of course quantity and quality; the two notions of quantity, that of quantity as mass and that of quantity as ratio. That quality is "neither finite nor infinite," being both in that it quite transcends the peculiar limitations of mere quantity, of quantity as mass, is commonplace, but the ratio too, however fixed or constant or even because fixed or constant, is equally independent of these limitations and so is "neither finite nor infinite" also. Thus the triangle is a triangle quite without regard to its size, for mere mass is not even necessary to its being, as many operations in mathematics have borne witness; only the ratio in the constant sum of the interior angles is necessary to its triangularity; and what is true of the triangle is similarly true of any number or of any geometrical figure whatsoever. Recall, too, that in the history of mathematics, unless I greatly misunderstand, the clearly conscious use of quantity as ratio followed upon the recognition of incommensurables and the employment of the infinite "limit" which incommensurables made necessary. Quantity then became ratio because from the standpoint of infinity it had in the first place to be separated from sheer physical mass, and in the second place to be given the relational as opposed to intrinsic value which belongs to the ratio. The infinitesimal is preëminently not mass but ratio.

So we see what the opposition of the finite and the infinite was burdened with and accordingly in just one more way what was lurking in the Eleatic philosophy. Eleaticism was all but at a point of saturation, when precipitation would be inevitable, when the physical, cosmological point of view would have to be abandoned and succeeded by a view that would openly recognise the



second meaning with which the different opposites are now seen to have been pregnant. And no consequence to Eleaticism of the One being "neither finite nor infinite" can be more significant than its reduction of the physical or materialistic monism to a mere bubble that was likely to burst at any moment and become at once, as if the reverse and obverse of each other, materialistic pluralism and idealistic monism. So good an Eleatic as Melissos was keen enough to say: "If there were many things they would have to be just of the same nature as the One;" and, although this was hardly intended as even a concession to pluralism, yet, like all assertions of its kind, in which an opponent's view is admitted for the sake of argument, it put Eleaticism upon the thinnest of ice. Thus Burnet has declared<sup>1</sup>: "What appears later as the elements of Empedokles, the so-called 'homoeomeries' of Anaxagoras and the atoms of Leukippos and Demokritos is just the Parmenidian Being. Parmenides is not, as some have said, the father of idealism; on the contrary, all materialism depends upon his view of reality," and this is true so far as it goes and it shows how thin the ice was. It is true except for its assumed superiority over those who have seen in Parmenides or in Eleaticism generally the progenitor of idealism. Surely materialism was never born alone. Materialism and idealism were twins.<sup>2</sup>

Still a fifth paradox, not yet even mentioned here as belonging to the Eleatic philosophy, might profitably be considered. The one plenal thing, that is, Being was immobile and consequently motion was illusory, belonging like plurality to the sphere of not-Being. In rest and motion, then, we have two more opposites of which self-opposition and duplicity may or rather must be true, but how? The denial of motion to Being was (1) in consequence of the plenum seeming necessarily static or (2) in consequence of space's infinite divisibility making either the shortest distance infinite or the limits of the longest contiguous, and only by examina-

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<sup>1</sup> *Early Greek Philosophy*, p. 194.

<sup>2</sup> A study in the logic of Greek pluralism as formulated by Empedokles and Demokritos was published in the *Philosophical Review* for May, 1901.

tion of these premises can the conclusion to which they led be understood. The argument from plenitude is a familiar one, for to many others as well as to the Eleatics the world has seemed too full for motion; but what can such an argument mean if not that something besides extension, that is, besides mere change of position in a massive or purely extensive space, must be really true of motion? Not motion is impossible in a plenal world, not a plenal world must be absolutely passive, but instead the motion of a plenal world must be intensive as well as extensive, or—with reference to the change it manifests—qualitative as well as quantitative, or perhaps, as the terms are sometimes used, chemical as well as physical. Moreover, physically a plenal world is hardly conceivable as a passive world in the sense of a world physically at rest, since the *perfectly* passive must always be acted upon from without and could not accordingly be plenal or immobile. But the argument from the infinite divisibility of space, the natural sphere of motion, is more interesting and possibly more obviously serviceable to our present purposes. Thus there can be no shadow of doubt that motion in so far as extensive becomes rest in an infinite space, in a space of infinite infinitesimal parts; but why should it not? At infinity the quantity of which space is made is, as we have already been reminded, not mass but ratio, and in a space made of quantity as ratio, motion far from being unreal only gets another meaning and even a deeper reality. Or, again, the pause or rest that space's infinite divisibility gives to extensive motion cannot be a negative of motion in the sense of something that excludes motion; it is, on the contrary, an essential character or property of motion itself just as infinity was necessarily in and of the finite, not apart from it, or as ratio was an inner truth of quantity, not a denial of it. Achilles was very swift and the tortoise was very slow, but in a space of infinite massless parts or points Achilles could never appear as overtaking the tortoise, because in such a space, not the actual distances traversed, but the ratio of the distances traversed, was really the significant thing and the ratio was a constant. The motion, then, was *also* rest. You do not see this? Then you have not seen that at infinity quantity, which here is distance, is significant

only as ratio. Zeno himself may not have understood the rest, to which he reduced motion, in just this way, he may not have appreciated the distinction between mass and ratio and its origin, so to speak, from the projection of quantity to infinity, and more recent logicians and mathematicians, however much they have profited by use of the idea of infinity, may not have seen in infinity anything more than the absolutely large or the absolutely small, but this is no hurt either to the real effect or to the real import of infinity itself. Simply projection to infinity makes quantity only ratio and in a space of quantity as ratio motion is rest. The projection reveals intension in what had seemed only extensive.<sup>1</sup>

So, like the other opposites in Eleaticism these two, motion and rest, were mutually inclusive or self-opposed and double,<sup>2</sup> and with this final evidence before us of the inner truth of the Eleatic philosophy we can pass with confidence to the consideration of the conception of Becoming in which Herakleitos sought to unite the Eleatics' opposites. Indeed, in the self-opposition and duplicity we have in the first place a perfect justification of Herakleitos and in the second place a direct and thoroughly obvious indication of the import of his notion of Becoming. Herakleitos was truly a "dark philosopher," but after all is said his obscure deliverances were only an open, public expression of what was private and hidden, or if even recognised at least not understood among the Eleatics.

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<sup>1</sup> Projection to infinity seems to me to be only a process by which the constructive or constitutive principle of a series is positively asserted *as a principle* if not actually abstracted, the abstraction, of course, being from *all* the particular cases to which the principle is applicable. At infinity we have, not another term or case, for an infinite series has no last term, but the order or system or at least what really amounts to a disguise or indirection for the order or system of the series. See also a short article: "Professor Fullerton on the Doctrine of Space and Time," in *The Psychological Review*, March, 1902.

<sup>2</sup> In summary the opposites, the One and the Many, were double, with extensive and intensive or potential and actual unity and plurality; Being and not-Being, with reality as physical and as ideal or logical; plenum and vacuum, with the fulness or unity of matter and of mind; infinity and finiteness, with quantity and quality or quantity as mass and quantity as ratio, and motion and rest with motion or rest as physically absolute and as only relative or as extensive and intensive.

Of Becoming, then, two things are necessary. It was very far from being an unmixed physical conception, and it was no nearer to being wholly idealistic. Both to those who would emphasise Herakleitos's selection of fire instead of water or air for the first principle of things, and would consequently make a somewhat tardy Milesian philosopher of him, and to those who would commit that other anachronism, even more violent, of finding him a well-developed forerunner of Hegel, we have only to say that such interpretation has little if any respect for history, logic, or common-sense. Was Herakleitos a hylozoist or in the pre-Socratic sense a materialist? In any sense, was he an idealist? Our foregoing analysis of the opposites which Becoming unified and of the conditions or logical implications of opposition generally, can suggest only that Herakleitos was neither materialist nor idealist, and that he was neither because both, and both at a time when mind and matter had been separated, but without anybody really knowing, really having the eyes to see, what had been done; such was the spell of the cosmological point of view. Above, it was said that materialism and idealism were twins born of Eleaticism. They were and the philosophy of Herakleitos was a contemporary of Eleaticism rather than a follower; and with its obscurity, paradoxes, apocalyptic deliverances and all, it must stand in history for a not unwarranted and certainly not unnatural protest against the dual life that philosophy had in promise, that was already at the hour of its coming. Becoming, neither any mere physical process nor any pure principle of dialectic, was the always equal struggle of the physical and the spiritual, of body and mind; it was that double process, with its "way up" and its "way down," which in these days one can style only mind and matter interaction; it was the poise of consciousness, at once sensuous and rational; only—and this is the important qualification—for mind, for the spiritual or rational Herakleitos and his contemporaries had only the indirections of physical abstraction and paradox. And how could Becoming be anything else, when the opposites, which were its recognised factors, were themselves alive with all the conditions of dualism?

In conclusion it would be interesting to bring the electricity of

these philosophies down from the clouds of logical subtlety to the earth of the Greek life of the time ; for opposition with all its logical implications was developing rapidly in the relation of Greek and Barbarian, and, through the art that their conflict stimulated, the consciousness of Greece assumed just that poise of the sensuous and the spiritual or of the passing and the coming, which Hera-  
kleitos, however mystically and philosophically, recounted in his conception of Becoming. But to many, fancies such as these are mere fancies, idle perhaps in any place, and in a logical study like the present most impertinent.

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